

in small basins including water flow paths and their influence on nutrient fluxes and contaminants (12 papers); and hydrological regionalization: aims, scale problems and methodologies (eight papers).

Mostly, there is an even balance of treatment between the themes, with many of the authors attempting to contextualize and generalize from their specific research experience. All but one of the papers are written in English and most are adequately illustrated and referenced, but inevitably, in such a multi-authored volume, there is variability of style, content and standard of presentation. Many of the papers are very good; some are less satisfactory. In a brief review it would be invidious to select examples of either, although simply from the point of view of its interest and novelty I was much taken by Arnell's analysis of the spatial variability of runoff in Europe.

There is much in this publication that is challenging, interesting and new. It certainly contains ample evidence that, at least in hydrology, the nations of Europe are able

not only to establish appropriate procedures but also to collaborate in the application of those procedures to the advancement of hydrological understanding. As a source of information and ideas on streamflow and runoff, this publication will serve hydrologists well. I am delighted to have a copy on my bookshelves.

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REFERENCES

- Gustard, A. (Ed.) 1993. *Flow Regimes from International Experimental and Network Data, I. Hydrological Studies; II. Hydrological Data; III. Inventory of Streamflow Generation Studies*, Institute of Hydrology, Wallingford, U.K.
 Roald, L., Nordseth, K. and K.A. Hassel (Eds) 1989. *FRIENDS in Hydrology*. IAHS Publication No. 187, IAHS Press, Wallingford, U.K.

THE ENCYCLOPEDIA OF PHYSICAL GEOGRAPHY (SECOND EDITION) edited by A. Goudie, B. W. Atkinson, K. J. Gregory, I. G. Simmons, D. R. Stoddart and D. Sugden, Blackwell, Oxford 1994. No. of pages: xxvi + 611. Price: £16.99 (pb). ISBN 0-631-18608-5.

The second edition of this dictionary contains over 2000 references written by an international team of 50 contributors. The entries cover biogeography, climatology, ecology, geomorphology, hydrology, pedology and Quaternary studies. Many of the original entries have been revised, with some welcome additions covering the causes, consequences and analysis of environmental change, both natural and forced. The format remains the same, with a mixture of short definitions, more extended mini-essays and plentiful illustrations, and the production and design are clear and of a very high standard. At £16.99, the paperback edition is priced to appeal to a wide audience, spanning advanced sixth form through to undergraduates in the geographical, earth and environmental sciences. Inevitably, every reader with a particular interest might wish for more of some definitions and less of others, but the book has no serious rivals in style, content, quality and marketability, occupying a niche between more traditional dictionaries such as *The Facts on File Dictionary of Environmental Science* (Eds H. Stevenson and B. Wyman, Facts on File, New York, 1991, 294 pp) and the more extensive and thematic *Cambridge Encyclopedia of Earth Science* (Ed. D. G. Smith, Cambridge University Press, Cambridge, 1981, 496 pp).

If there are no clear competitors amongst earth and environmental science texts, a geographically minded audience might make less comfortable comparisons with its companion volume, *The Dictionary of Human Geography* (Eds R. J. Johnson, D. G. Gregory and D. G. Smith, Blackwell, Oxford, 1994, 724 pp), revised for its third edition at about the same time. Possibly because of its additional revision, updates are more comprehensive (at a rough count, 50 per cent of references are post-1985, compared with only 15 per cent in the physical volume), although this might reflect more profound contrasts regarding the nature of the respective sub-disciplines and their standing in the wider academic community. The essays in the physical volume are clearly less critical and discursive, and concentrate on the more secure knowledge of 'knowing things' rather than 'knowing about them', but there are some surprising (and worrying) omissions. For example, while geography and human geography receive essay-length treatment in the human volume, neither geography nor physical geography rate a mention in the physical one. This creates the impression that the only distinction of physical geography lies in its eclecticism and the rather obscure vocabulary of pre-War landscape description. Perhaps the next edition of this text might incorporate more radical revisions, and take the opportunity to identify physical geography as a natural and leading candidate to contribute to the emergent analysis of large and complex environmental systems.

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